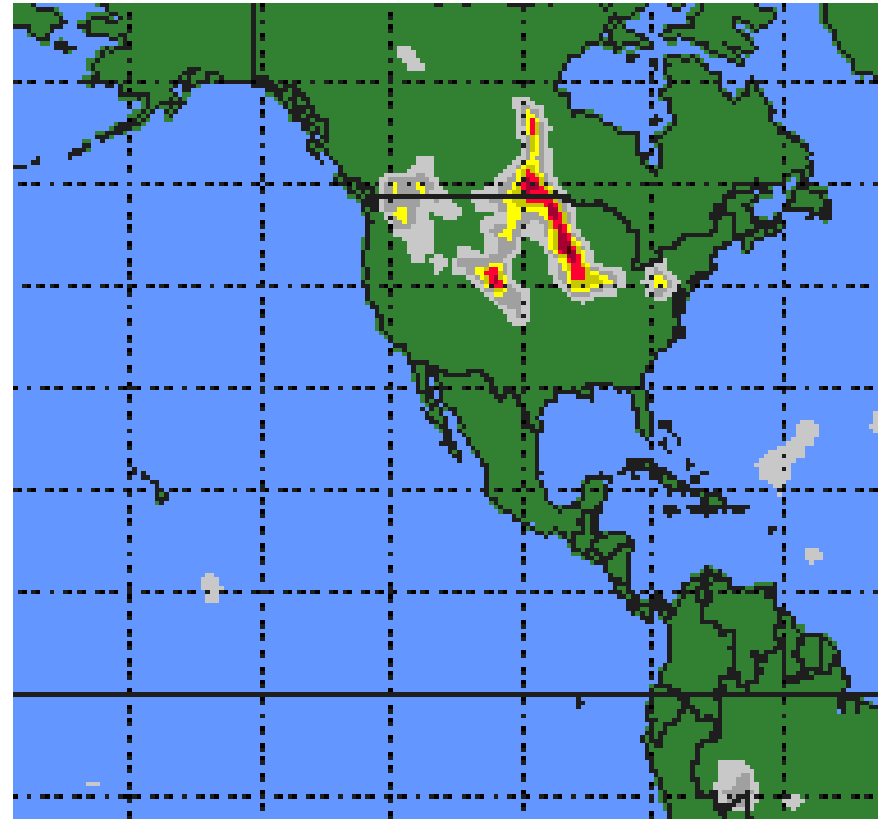


The 2006 Boreal Forest Fire Season as seen by OMI

*Omar Torres, Ray Hoff, Ray Rogers
University of Maryland, Baltimore County*

*Changwoo Ahn, Colin Seftor
SSAI, Lanham, Md*

**Aura Science Meeting
Aerosols/Cloud/SO₂ group
9-12-2006**



OMI Aerosol Index 09-06-06

OMI Near UV Aerosol Algorithm (OMAERUV)

Products:

- Near UV Aerosol Index
- Extinction Optical Depth, AOD (388 nm)
- Absorption Optical Depth, AAOD (388 nm)
- AOD and AAOD reported also at 354 and 500 nm

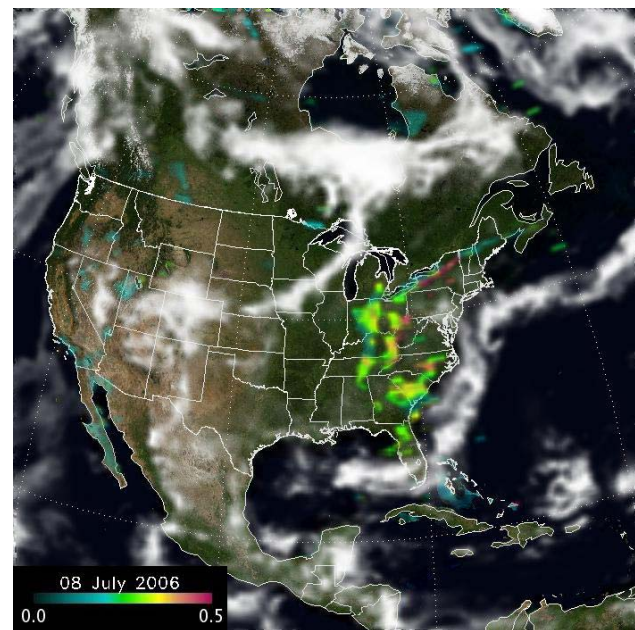
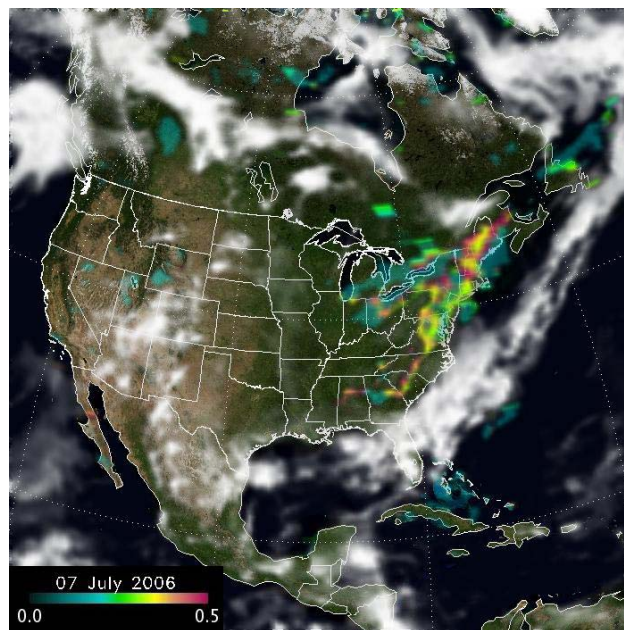
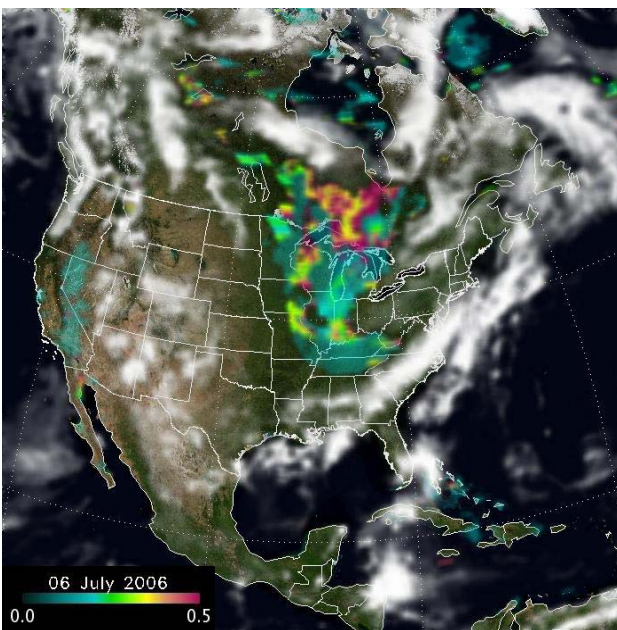
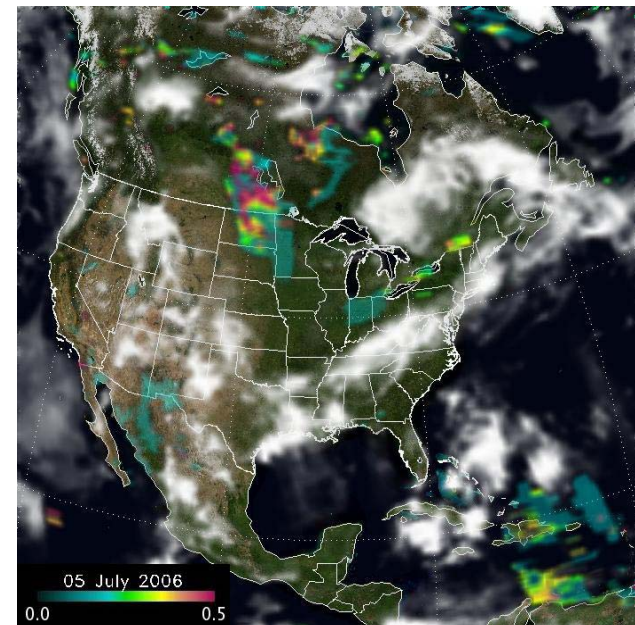
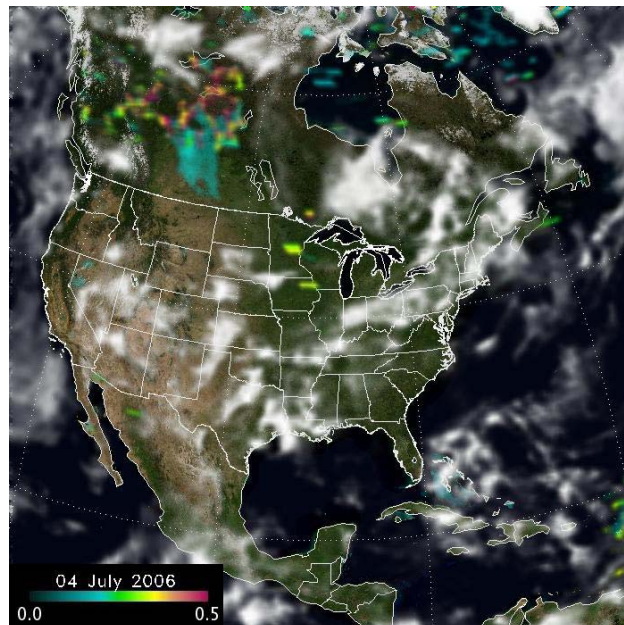
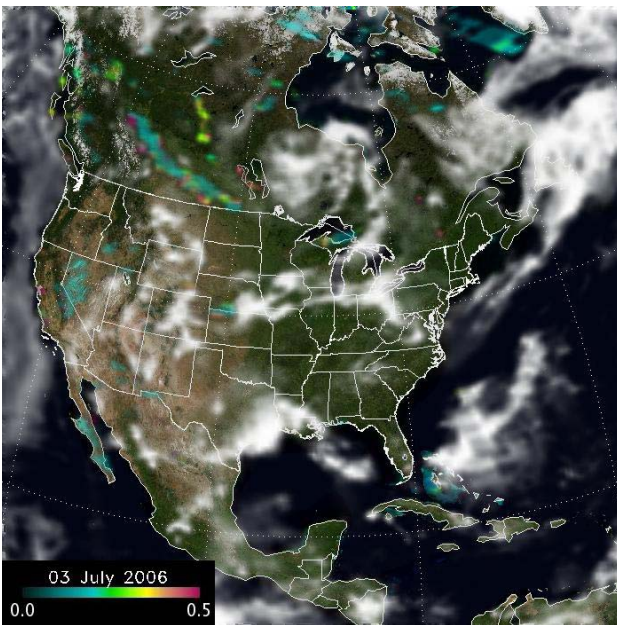
Two sets of AOD and AAOD are reported

Set 1: As a function of assumed aerosol layer height above surface: 0.0, 1.5, 3.0, 6.0 and 10.0 km

Set 2: Recommended values for a particular assumption on aerosol layer height.

For boreal forest fires the aerosol layer is assumed to be at 6.0 km

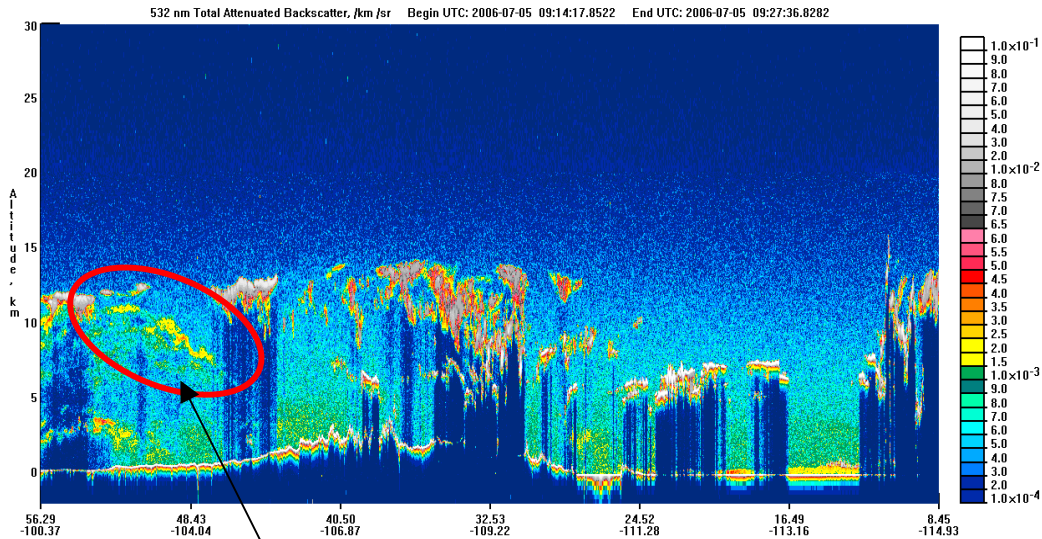
Absorption Optical Depth (388 nm), July 3-8, 2006



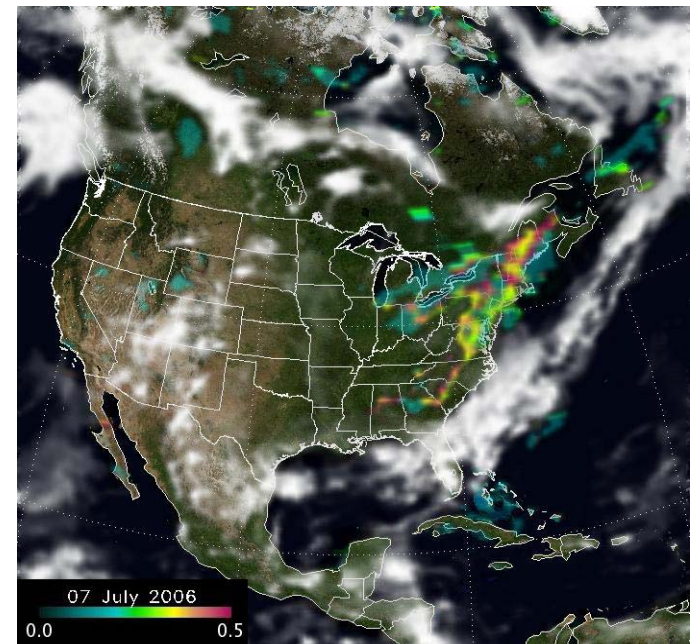
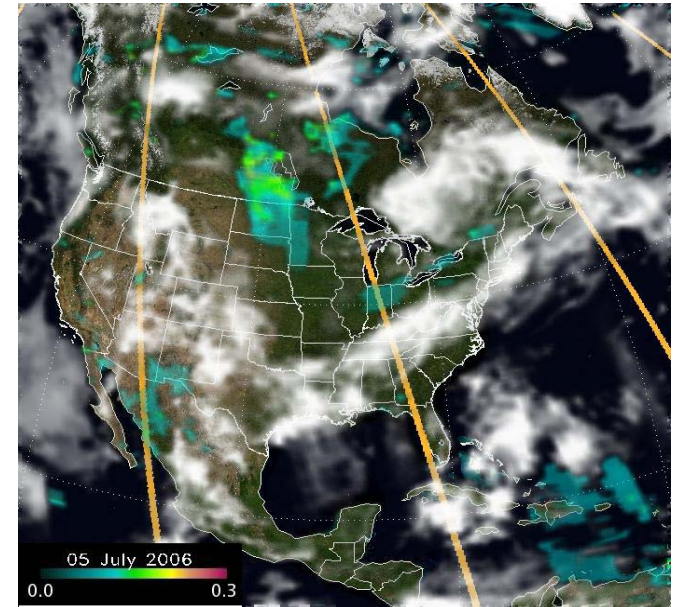
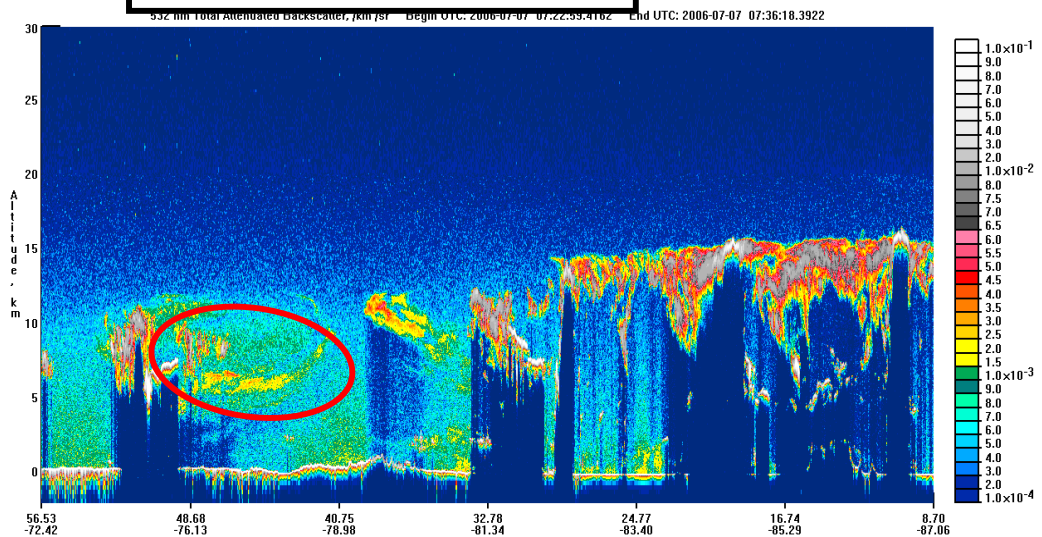
OMI and CALIPSO Observations on July 5 and 7



Credits: CALIPSO Science Team

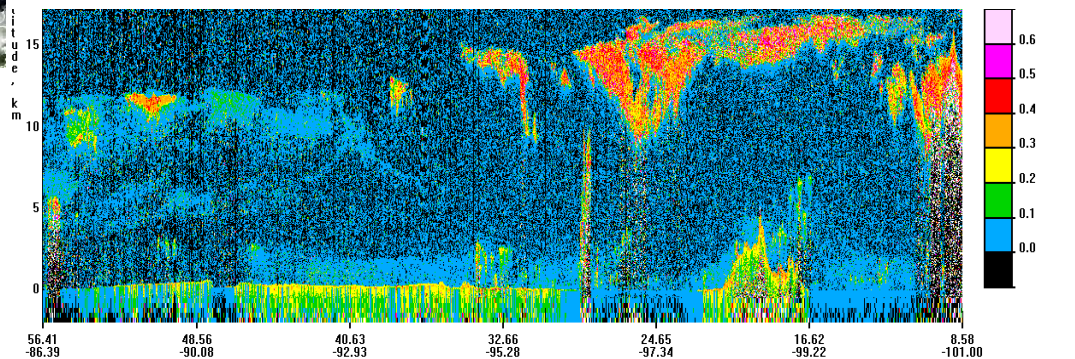
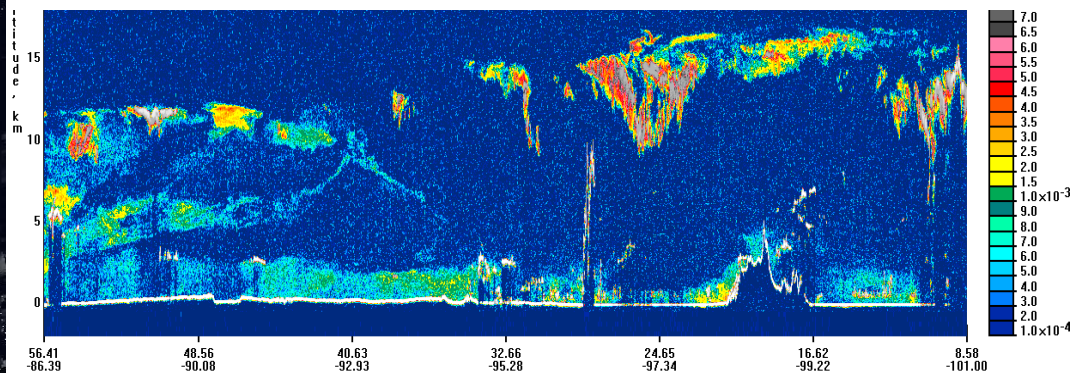
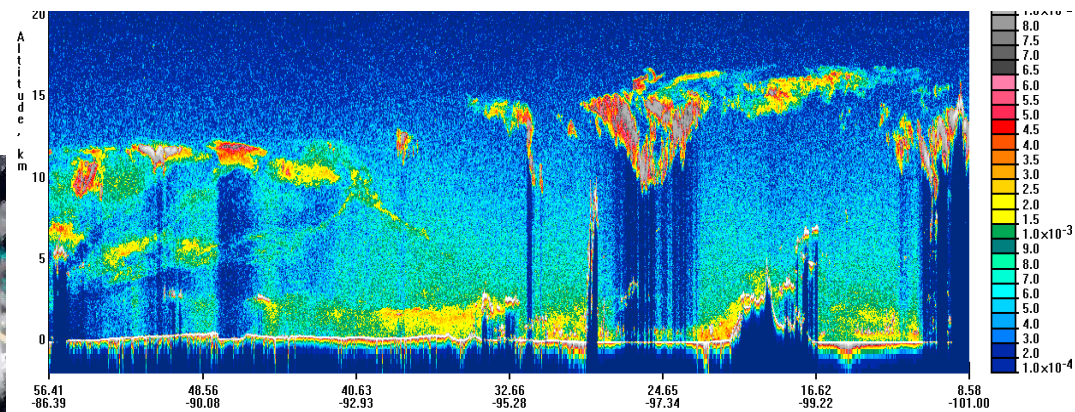
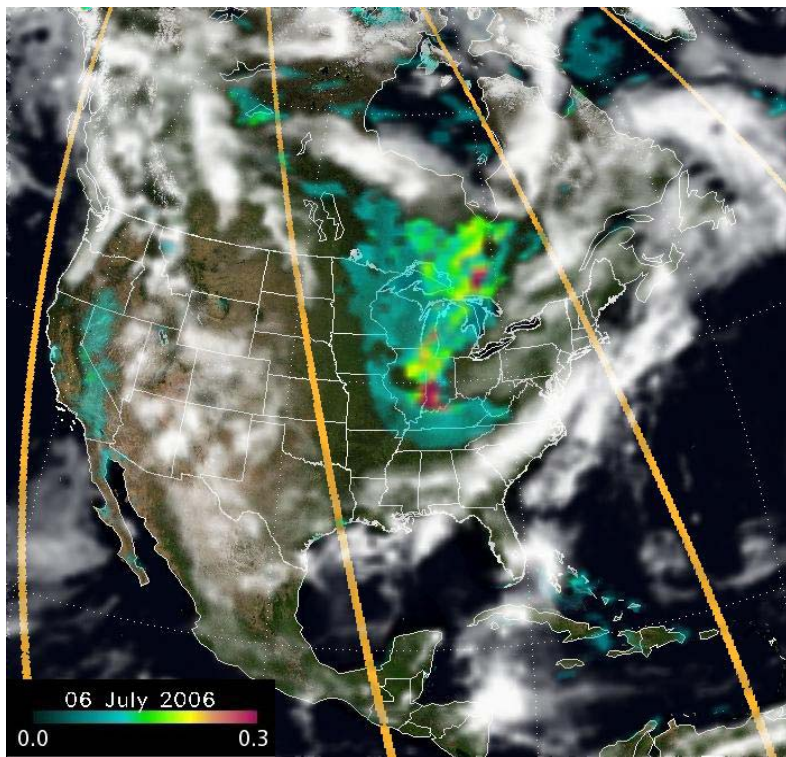


Aerosols between 7 and 10 km

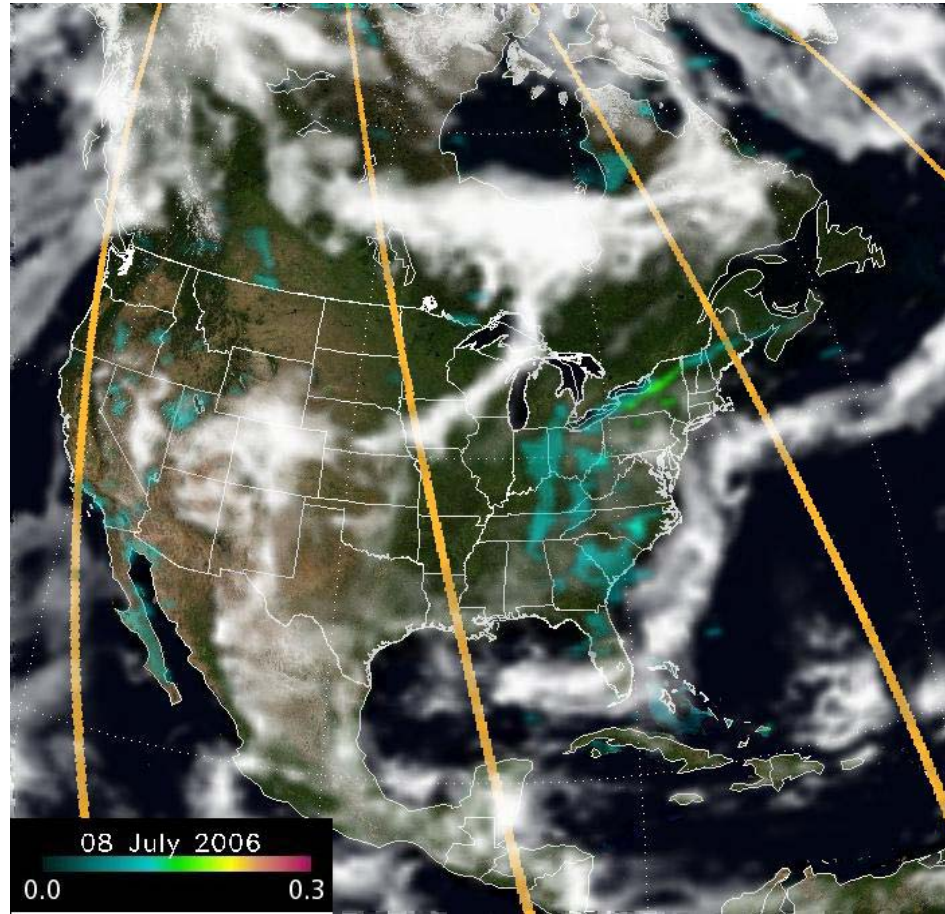
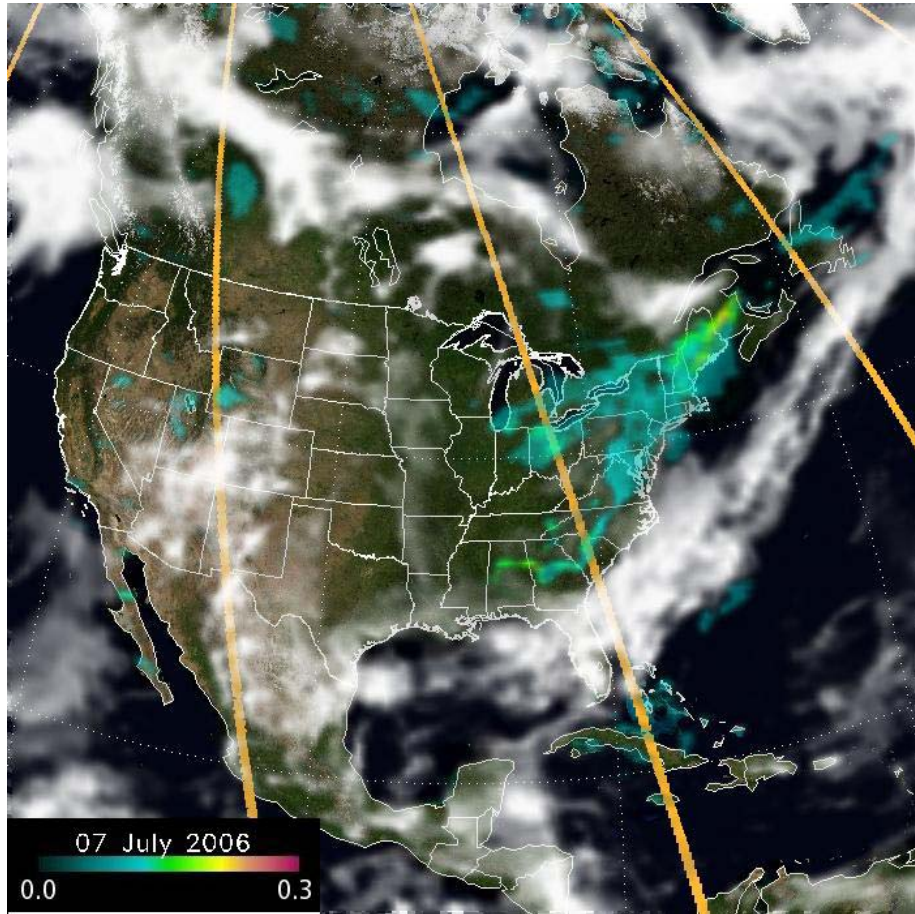


July 10

Credits: CALIPSO Science Team



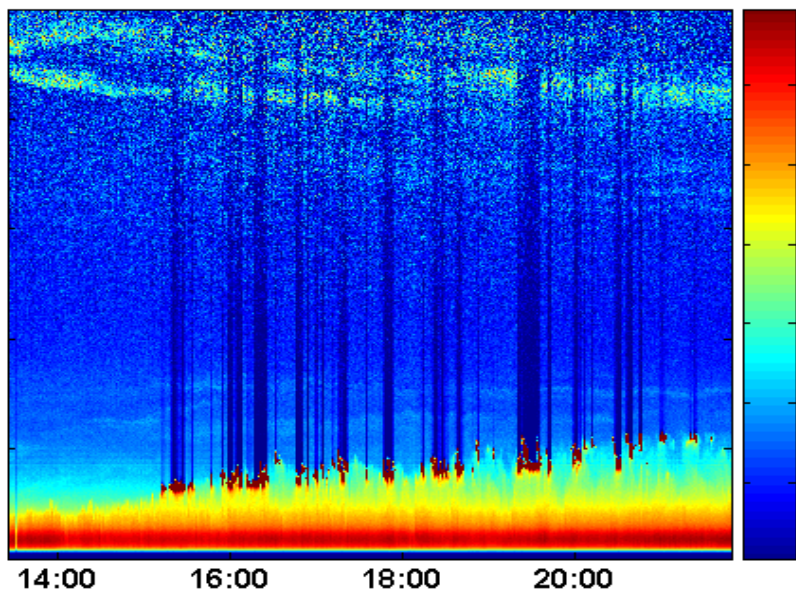
Arrival to the East Coast (July 7 and 8)



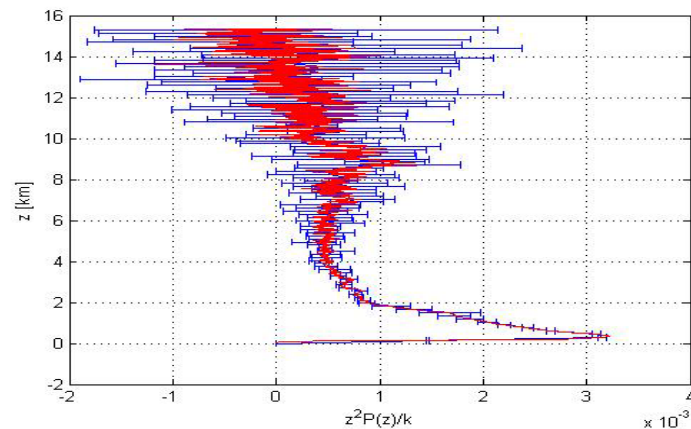
(10 km retrievals)

Smoke vertical distribution over UMBC

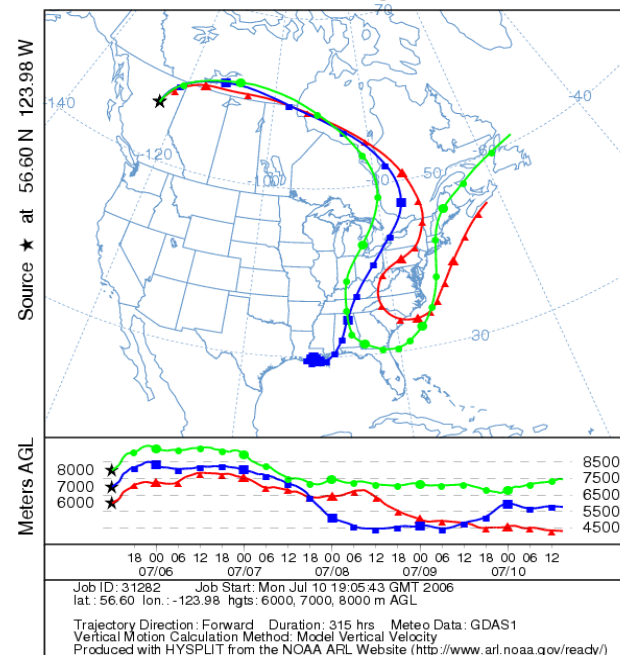
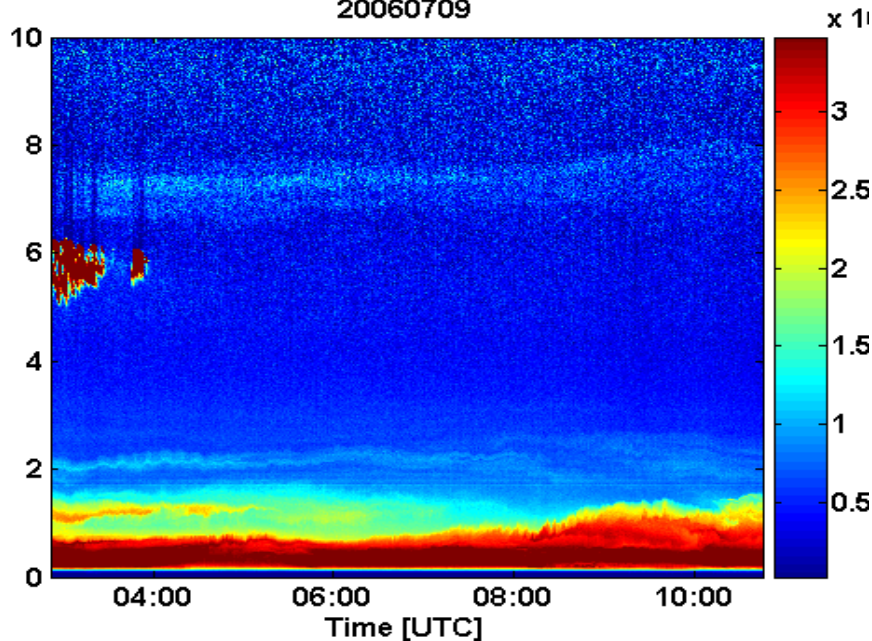
20060707



Credits Ray Rogers/UMBC

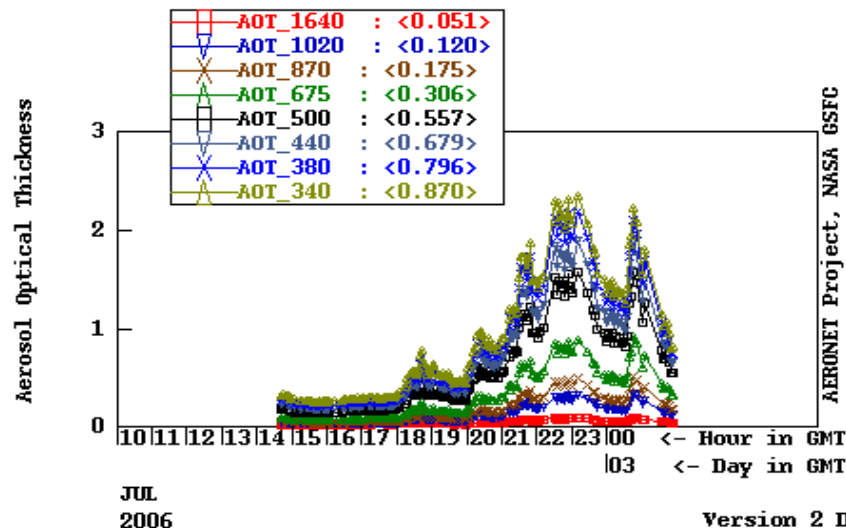


NOAA HYSPLIT MODEL
Forward trajectories starting at 12 UTC 05 Jul 06
GDAS Meteorological Data

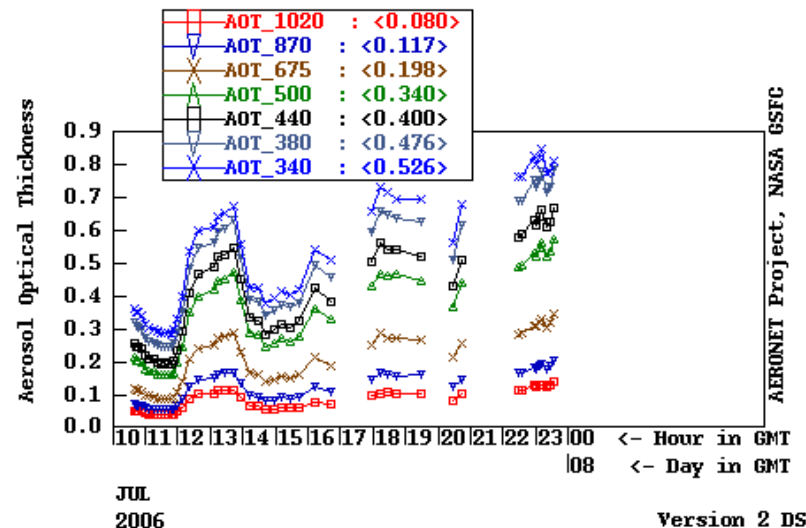


The Canadian smoke layer as detected from the ground

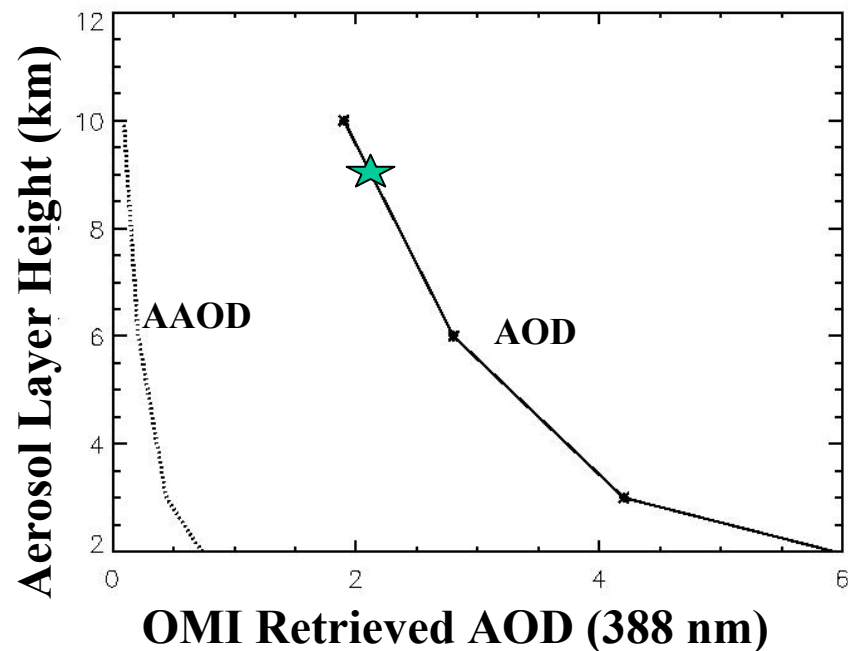
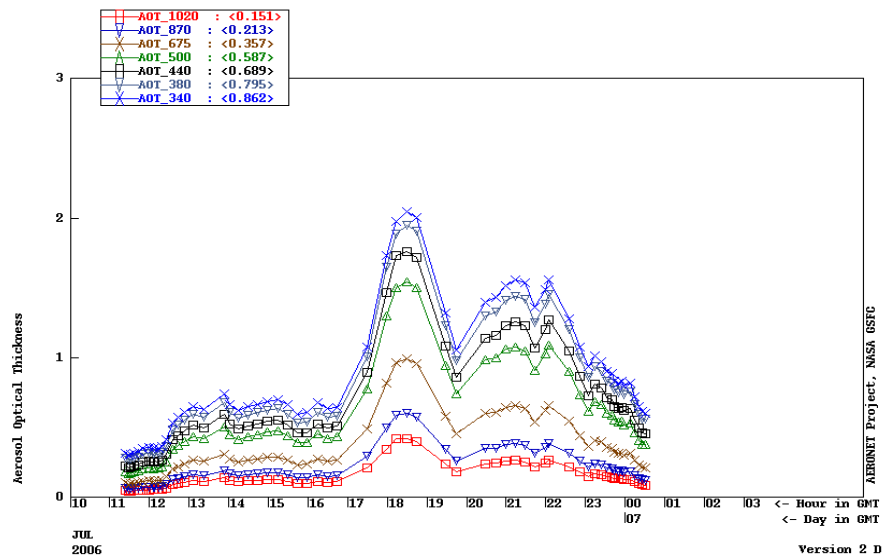
Bratts_Lake , N 50 16'48", W 104 42'00", Alt 586 m,
PI : Bruce_McArthur, Bruce.McArthur@ec.gc.ca
Level 1.0 AOT; Data from 2 JUL 2006



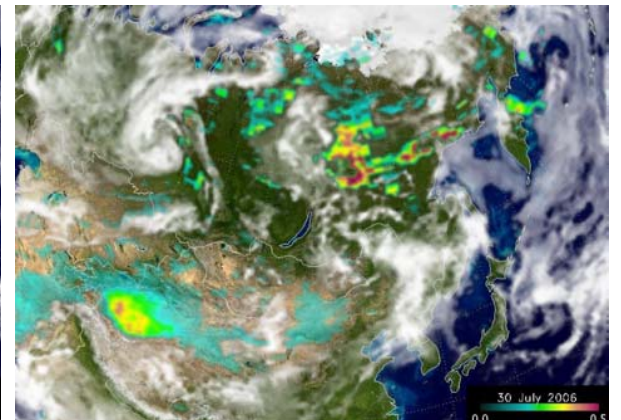
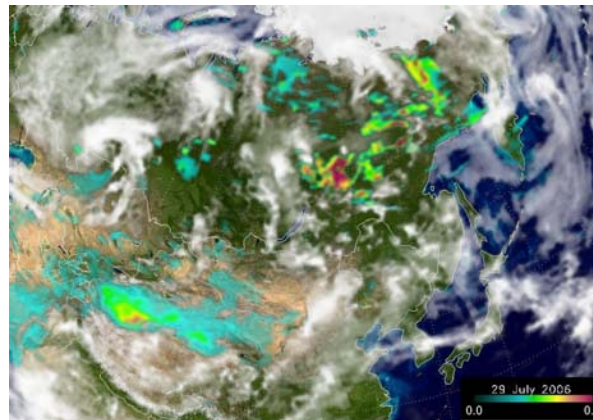
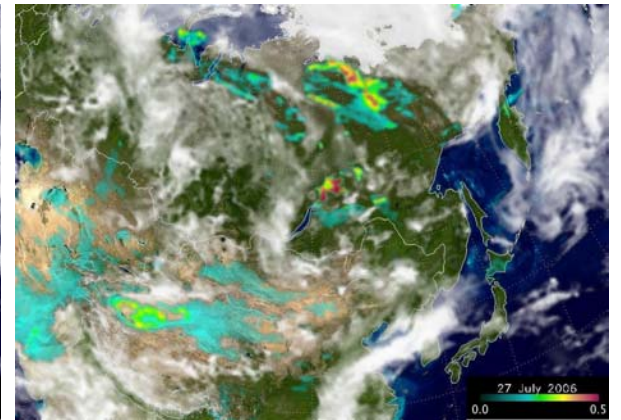
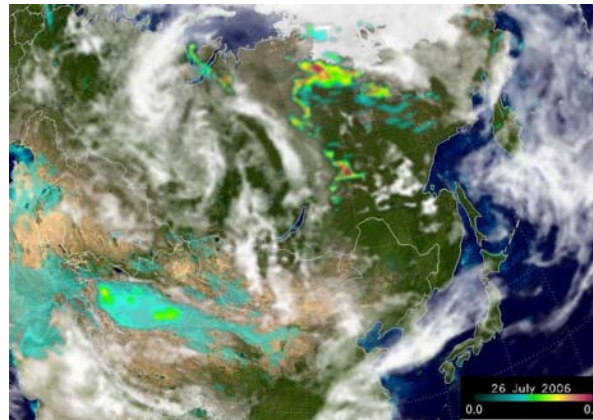
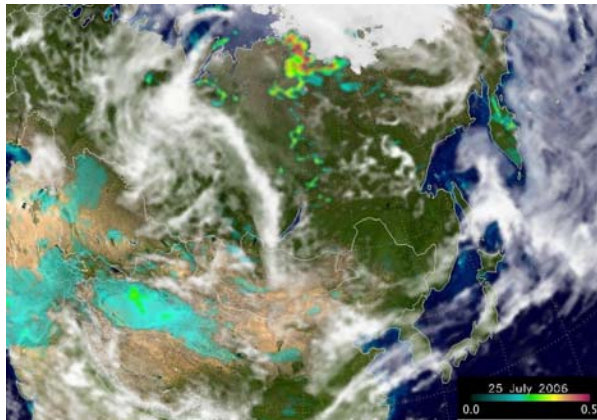
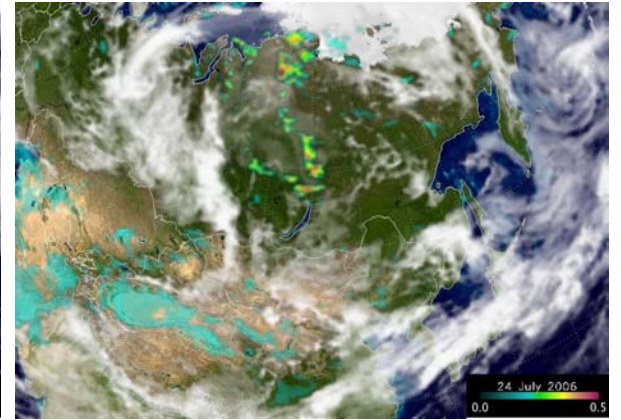
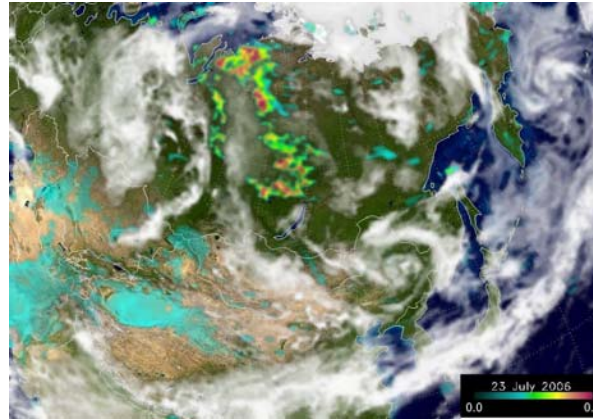
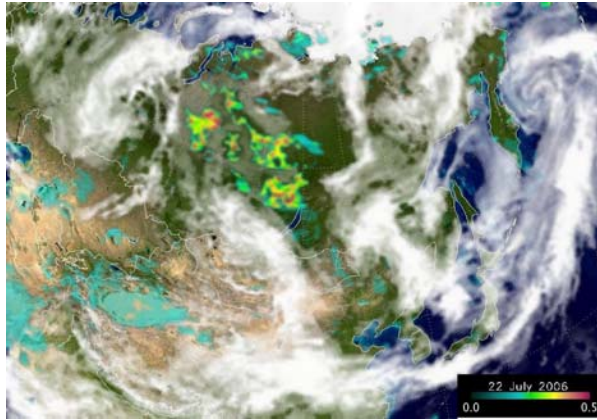
GSFC , N 38 59'31", W 76 50'24", Alt 87 m,
PI : Brent Holben, brent@aeronet.gsfc.nasa.gov
Level 1.0 AOT; Data from 7 JUL 2006



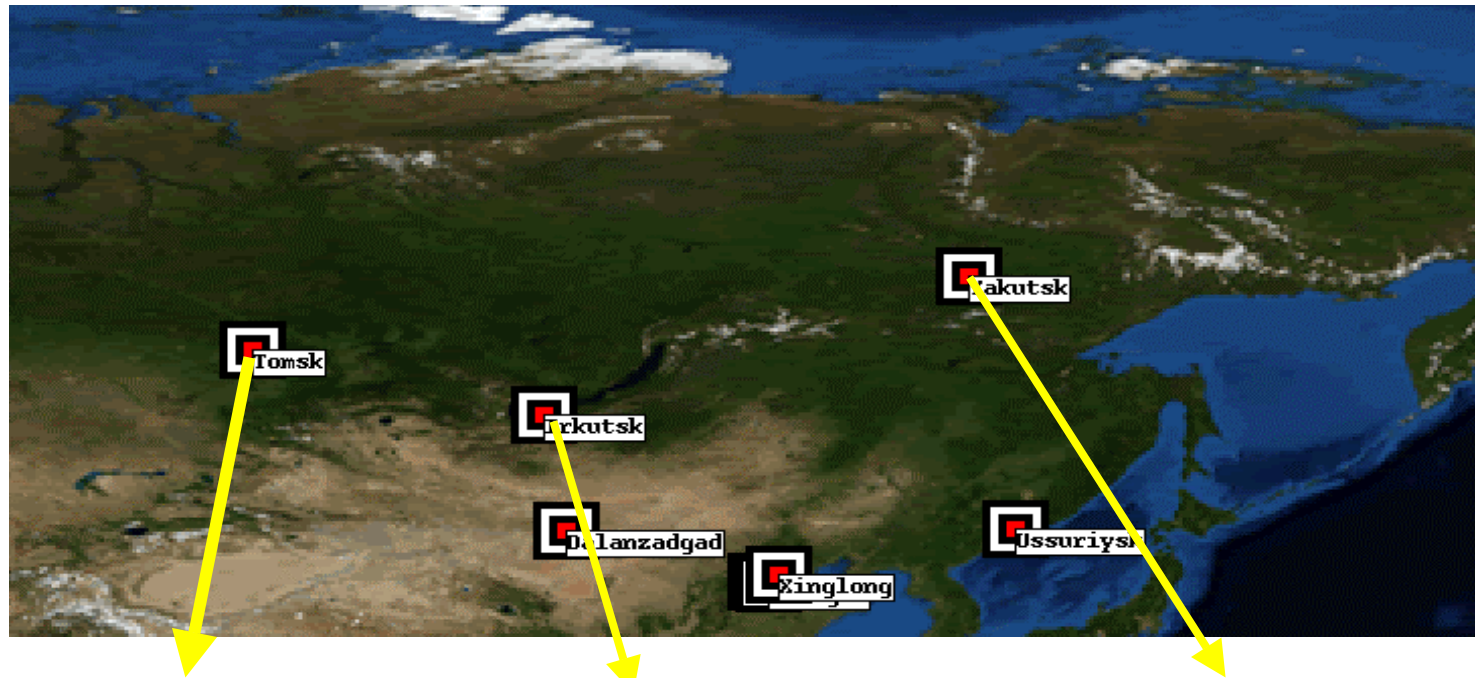
BONDVILLE , N 40 03'10", W 88 22'19", Alt 212 m,
PI : Brent Holben, brent@aeronet.gsfc.nasa.gov
Level 1.0 AOT; Data from 6 JUL 2006



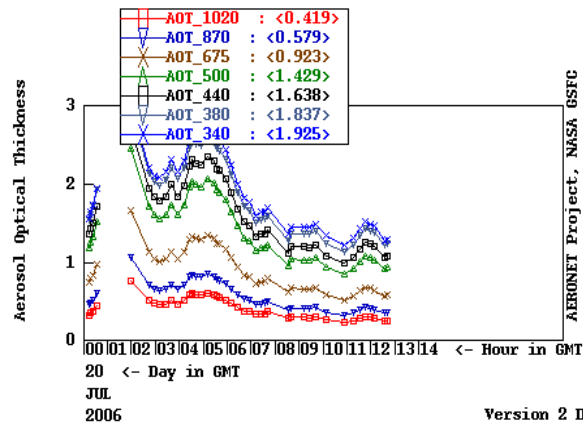
Forests Fires in Siberia July 23-30, 2006



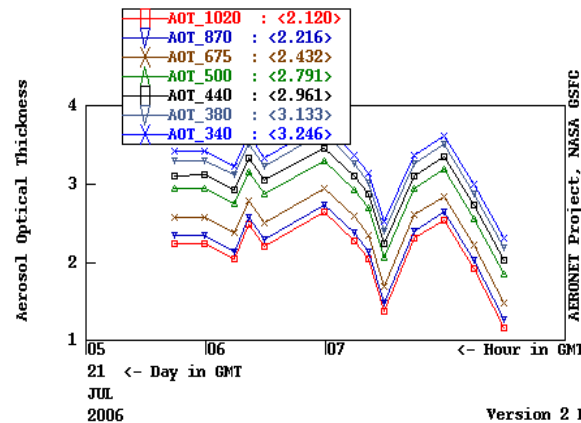
Aeronet measurements on the path of the smoke layer



Toms , N 56 28'37", E 85 02'49", Alt 130 m,
PI : Brent_Holben and Mikhail_Panchenko, brent@aeronet.g
Level 1.0 AOT; Data from 20 JUL 2006



Irkutsk , N 51 47'60", E 103 05'13", Alt 670 m,
PI : Mikhail_Panchenko and Brent_Holben, pmv@iao.ru and
Level 1.0 AOT; Data from 21 JUL 2006



Yakutsk , N 61 39'43", E 129 22'01", Alt 118 m,
PI : Brent_Holben and Mikhail_Panchenko, brent@aeronet.g
Level 1.0 AOT; Data from 29 JUL 2006

